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Cornhusker Economics

Why Do People Follow Popular, or *Fad*, Diets?

The tradition of goal setting at the start of a year—New Year’s resolutions—is deeply engrained in American society: estimates suggest that between 40 and 50% of adults set New Year’s Resolutions. Many of the most common goals relate to weight management—initiating exercise programs, dieting, or both—which is perhaps unsurprising since over 70% of American adults are overweight or obese.

Making—and sticking with—the systematic changes needed to lose weight can be hard. Introducing an exercise routine takes dedicating a chunk of time into an already busy schedule and changing dietary patterns can be hard on multiple levels, ranging from investing the time to learn new recipes that fit within the individual’s preferences to overcoming deeply engrained—sometimes nearly automatic—eating habits (e.g., perhaps when there is a bowl of chips sitting in front of you).

A second complicating factor relevant for people looking to make changes in dietary patterns that will improve their health is how to effect the desired change. While all packaged food products—and food items sold at restaurants and other prepared food outlets with at least 20 locations—have objective nutritional information provided on the package, there are a variety of reasons that people may have a difficult time using the information effectively. The first is that it may not be clear to people how the nutritional attributes will translate into the desired outcome, like weight loss. In fact, researchers have found that many people have a hard time interpreting the types of nutrition information provided on packaged foods. Additionally, there is widespread evidence that even when nutrition information is freely available, people

ignore the information or inaccurately remember the information—for instance, underestimating the number of calories in food items they have selected.

For a small but significant percentage of the population looking to lose weight through dietary modification, so-called fad diets may appear to present a straightforward, simple solution. Fad diets effectively simplify the individual’s decision by turning a complex, multi-faceted decision taking into account the values of a range of nutrients into a binary decision, such as “does this have gluten?” Despite the popularity of fad diets, there is little research on what drives people to turn to fad diets. An exception is our recent paper—Arslain et al. (2020)—published in the journal *Appetite*, which examines factors associated with people turning to the gluten-free diet. In this article, I will highlight a few of the key findings from that work.

Beliefs, Knowledge, and Recommendations and the Gluten-free Diet

The gluten-free diet, while critical for individuals with Celiac disease or non-Celiac gluten sensitivities, has also been embraced by many who do not have a medical reason to follow the diet. Responses to a nationally representative nutrition and health survey implemented by the Centers for Disease Control and Prevention (CDC) suggest that approximately 25% of Americans have followed the gluten-free diet, while estimates are that only 1% of Americans have Celiac disease and 3 to 6% have non-Celiac gluten sensitivities.

So, what motivates people who do not need to follow the gluten-free diet for medical purposes to avoid gluten? In our recent study, we surveyed over 3,000 U.S. residents to examine a variety of individual factors that influenced individuals' decisions to try the gluten-free diet. Just as in the recent study based on CDC data, we found that around one-quarter of respondents had in the past or were currently following the gluten-free diet. While the study using CDC data did not include questions about motivations for following the diet, we were able to dig into people's beliefs, motivations, and knowledge—among others—that related to following the diet.

First, we wanted to investigate popular claims that celebrities and social-media influencers have played a large role in the popularity of the diet. Therefore, we asked respondents to indicate if they had received a recommendation to try the diet as well as the source of the recommendation. People who followed the gluten-free diet were significantly more likely to have been encouraged to try the diet than those who did not. However, in a statistical analysis, the most influential sources of recommendation were health professionals and personal research, while recommendations from celebrities/social media personalities did not explain individuals' decisions to follow the diet. The finding related to personal research is particularly interesting because we often think of the general public receiving and acting on health messages disseminated by food experts, companies, etc. This suggests, however, that those messages may be an intermediate step in an individual's information-gathering process and that those who go on to convince themselves of the need to, say, follow the gluten-free diet via their own research are most likely to take that step.

We next examined individuals' beliefs about the diet because while objective nutritional information is available for packaged food products, individuals' prior beliefs about the healthfulness of the product may make them feel that they know enough without referring to information on the package. Significant percentages (20% or more) of both groups of respondents—those who followed the diet and those who did not—held positive views of the benefits of the gluten-free diet, though those following the diet were more likely to hold positive views. For instance, over 40% of individuals following the gluten-free diet believed that gluten-free products were more nutritious than gluten-containing versions of those products even though the

opposite is more likely to be true. In fact, individuals with Celiac disease—who must follow a gluten-free diet—have been found to be deficient in certain important nutrients because gluten-free products do not contain those nutrients in the levels than gluten-containing products do. Additionally, nearly two-thirds of gluten-free adherents believed that the diet was “healthier” than a diet containing gluten, suggesting that a so-called “health halo” may be at play. Health halos have been found around other product attributes—such as “organic”—and lead individuals to underestimate other negative characteristics of the product (such as calories). To that point, the most commonly held belief among all respondents was that the gluten-free diet was a good way to lose weight.

Knowledge is also important in understanding food choices. Two types of knowledge are relevant here and influence behavior in different ways. The first type of knowledge is known as “subjective” knowledge—or, how much people think they know about a particular topic. The second type is “objective,” or measurable, knowledge; in this case, we used a quiz-type format to measure what respondents knew. For both knowledge types, we examined three different topics: nutrition in general, grains, and gluten. Intriguingly, people who followed the gluten-free diet viewed themselves as significantly more knowledgeable than individuals not on the diet did, though this view was not borne out by their objective knowledge scores, which were indistinguishable between the two groups for nutrition and grains. Those on the gluten-free diet did have higher objective knowledge of gluten, but it was subjective knowledge that was most highly correlated with being on the diet.

Finally, participants responded to questions about satisfaction with their health, height and weight, perceived healthiness of their diet, and symptoms experienced when consuming gluten. Despite no difference in health satisfaction or in BMI—a measure combining height and weight information, which is used to define whether an individual is underweight, normal weight, overweight, or obese—individuals who followed the gluten-free diet were significantly more likely to believe that their eating habits were very healthy than those not on the diet. They were also significantly more likely to perceive symptoms when consum-

ing gluten, though the percentage of even gluten-free respondents who experienced the symptoms was small (under 20% for most symptoms).

Conclusions

A significant percentage of the American public has tried the gluten-free diet. While some who follow the diet must do so for health reasons, many others—the majority—do so voluntarily. Only 50 respondents to our survey (1.6% of the total sample) had been diagnosed with Celiac disease or non-Celiac gluten sensitivity, while around 25% of the sample had adopted a gluten-free diet or tried to avoid gluten and most of those did not report experiencing symptoms when consuming gluten. A concern with these popular diets is that there is little to no scientific evidence supporting the idea that they are in fact healthier than standard dietary recommendations. In fact, in some cases, there is evidence that they could potentially have negative effects on one's nutritional status, as in the case of the gluten-free diet. Gluten-free products also tend to be more expensive than conventional products, meaning that there are also financial costs to mistaking a diet as healthy.

A recent paper by a Brown University economics professor, Emily Oster, may provide insight into the dynamics that give rise to such popular diets. Individuals who are highly health conscious—and, therefore, healthier than the general population on average—are more likely to pay attention to new information about health. This, then, creates a correlation between the type of these already healthy people who modify their diets to incorporate the new information. While this has important implications for studies trying to examine relationships between dietary patterns and health, it may also be important observationally for individuals who subsequently consider dietary alterations. They may perceive the early adopters' health status as being a result of the diet rather than their underlying health consciousness and form beliefs about the healthfulness of the diet based on these observations.

Overall, our study highlights the importance of beliefs, knowledge, and response to information in individuals' decisions to follow a popular diet.

Further reading:

- Arslain, K., Gustafson, C. R., Baishya, P., & Rose, D. J. 2020. "Determinants of gluten-free diet adoption among individuals without celiac disease or non-celiac gluten sensitivity." *Appetite*, 156, 104958.
- Oster, E. 2020. "Health Recommendations and Selection in Health Behaviors." *American Economic Review: Insights*, 2 (2): 143-60.
- Vici, G., Belli, L., Biondi, M., & Polzonetti, V. 2016. *Gluten free diet and nutrient deficiencies: A review. Clinical Nutrition*, 35(6), 1236–1241

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